

Disclaimer:

This English translation is produced by machine translation and may contain errors. The JPO, the INPIT, and those who drafted this document in the original language are not responsible for the result of the translation.

Notes:

1. Untranslatable words are replaced with asterisks (****).
2. Texts in the figures are not translated and shown as it is.

Translated: 03:46:34 JST 11/20/2009

Dictionary: Last updated 11/13/2009 / Priority:

FULL CONTENTS

[Claim(s)]

[Claim 1]LED (7) is provided in at least one place of a lead (9) which wires along with a bone (3) which constitutes an umbrella, it letting this lead (9) pass to bone [said] (3) meet along said bone (3) and in a support (4), and accept it, and, [a lead] [wire and] Switch with a power supply battery (8) which makes circuit connection with this each lead (9), and, [a switch (10) and a blink circuit (11)] A luminescence umbrella grasping, respectively, providing in (5) or a ferrule (12), switching each LED (7) to blink "putting out lights" or "continuation lighting" or, and "luminescence", and making it emit light with said change switch (10).

[Claim 2]In said blink circuit (11), it is each LED (7) and (7)... A control part (11a) which changes a blink cycle of each of (7) respectively, and supplies electric power is provided, every beforehand set up by this control part (11a) -- LED (7) and (7) ... [at least two or more sorts of blink patterns according to a blink cycle of (7)] [prepare and] The luminescence umbrella according to claim 1 switching and choosing it as either of the blink pattern, and making it emit light with a blink pattern change machine (10A).

[Claim 3]A blink change switch (10B) which made one both vessels of the change switch (10) according to claim 1 and the blink pattern change machine (10A) according to claim 2 is formed in the circuit according to claim 2, the blink change switch (10B) -- every -- LED (7) and (7) ... (7) -- "Putting out lights", "continuation lighting", "blink pattern **", and "blink pattern ***" ... the luminescence umbrella according to claim 1 or 2 switching to either and making it emit light.

[Claim 4]The self-blink LED (7A) is formed in at least one place of a lead (9) which wires along with a bone (3) which constitutes an umbrella, it letting this lead (9) pass to bone [said] (3) meet along said bone (3) and in a support (4), and accept it, and, [a lead] [wire and] grasping a power supply battery (8) and a switch (10a) which make circuit connection with this each lead (9), respectively, and forming them in (5) or a ferrule (12) -- said switch (10a) -- each one -- oneself -- The blink LED (7A) (7A) ... (7A) "putting out lights" -- or -- "-- a luminescence umbrella making light blink, " carry out and emit.

[Claim 5]The luminescence umbrella according to claim 1, 2, 3, or 4 which made circuit connection of at least one of the bones (3) and support (4) supporters (6) which constitute an umbrella as an energized part which

supplies electric power to the oneself blink LED (7A) LED (7) or each each one.

[Claim 6]a sliding type electrode (16) which slides on the inside of a support (4), or a peripheral surface up and down, and carries out contact energization in an umbrella of a fold-up formula -- at least 1 -- the luminescence umbrella according to claim 1, 2, 3, 4, or 5 providing very much.

[Claim 7]In a proper place of said lead (9), carry out connection fixation and a socket (14) of a necessary number is manufactured, Next, the luminescence umbrella according to claim 1, 2, 3, 4, 5, or 6 having wired the lead (9) along with a bone (3), and providing each LED (7) in said socket (14) so that insertion and detachment are possible and a manufacturing method for the same.

[Claim 8]To a tip part of a lead (9) which supplies electric power to LED (7), carry out connection fixation and a socket (14) is manufactured, Next, a manufacturing method of a luminescence umbrella which locates this socket (14) at a bony (3) tip, makes the socket (14) equip with LED (7) so that insertion and detachment are possible, covers this LED (7) with the protection cap (15) of a light transmittance state, makes a tip part of said bone (3) decorate with, and is manufactured.

[Claim 9]A manufacturing method of the luminescence umbrella according to claim 8 with which LED (7) emits light to two or more colors with one LED simple substance and which becomes by LED or the self-blink LED (7A) two or more colors.

[Detailed Description of the Invention]

[Field of the Invention]This invention relates to the luminescence umbrella and manufacturing method which can be safely walked at rainy night.

[Description of the Prior Art]If you are walking along the umbrella very rainy night, a field of view may become narrow with an umbrella, that a car etc. approach not easily seen [the surroundings] may not notice, but it may be very dangerous. When the front to especially the wind is blowing, it is obliged to lean an umbrella ahead, a front oncoming car disappears, and it is very dangerous. Also in an automatic car side, a windshield becomes cloudy easily in the top where visibility is low, and a rainy day may not be very easy to discover it in a dress with a blackish pedestrian with whom it becomes impossible for the front to have been clearly seen, and it put especially the umbrella, if a blackish umbrella is very, and may become danger very much. Then, provide LED (light emitting diode) at the tip of the bone of an umbrella, and a battery is made to build in the handle (handle) portion of an umbrella, As a publicly known invention which makes said LED turn on, JP,H1-170120,U, It applies for JP,H2-59620,U, JP,H4-5906,A, etc., and applies for JP,S60-69022,U, JP,S60-45302,A, JP,H1-117213,U (only any of lighting or blink), etc. as a publicly known invention which makes it blink. In these publicly known inventions, when it actually carried out, the driver of the car could do vision of the light which lights up or blinks more easily than a distant place, and demonstrating an effect to some extent to the above-mentioned problem was confirmed by this invention person's trial experiment here. However, this invention person is a process of the trial experiment, there is room for improvement in said publicly known

invention further, and it found out that the effect in the much more safe side and ornamental face could be demonstrated by adding improvement. namely, -- in said publicly known invention -- every -- whether if LED turns on a switch, it will be turned on only in succession blinks -- it being one of those composition and in a safe side, Rather than the light which is emitting light continuously changeless as it is, the direction of the light which is emitting light while blinking makes cautions and warning of vision of man evoke more, and the light which is emitting light night can give people cautions and warning by blinking the light which emits light, and has there the characteristic of making it gazing at people's eyes. For this reason, it is still more effective to apply that characteristic and this invention person proposes [there] using luminescence of "continuation lighting", and "blink luminescence" properly here. [for example the thing rapidly switched to a "blink luminescence" state from a "continuation lighting" state] While it can be made to gaze there at people's eyes by sudden change of a lighting state and he is walking along the place along the route of a road, "continuation lighting" is used, and if "blink luminescence" is used when crossing a road, two steps of cautions and warning according to the spot can be given. If you are walking this along the place along the route only in the state of "blink luminescence", the driver of a car will always pour out cautions more than needed, and a nerve will get tired. However, with the composition of a publicly known invention, it does not change into "continuation lighting" or "blink luminescence" according to the spot. Next, in an ornamental face, the following thing is imagined as a problem which is conventionally latent in an umbrella. Although it originally carries and walks around with an umbrella on a rainy day, in the day when rain did not fall, or the interior of a room and a train, it tended to become a "burden" and the umbrella did not have the pleasure carried deficiently in fanciness as mere "tool of a rain-cover" in respect of practical use. And although made in view of the safe side also in the publicly known invention, it was lacking in fanciness. As a following problem, [problem / of a manufacture side] Although the problem is not mentioned by the publicly known invention in particular, in actually manufacturing the luminescence umbrella turned on or blinked using LED, there is a big problem which should be solved and the composition or the manufacturing method which solve the problem in a publicly known invention are not shown. For example, although the figure which fixes LED to the bone of an umbrella at JP,H1-170120,U, JP,H2-59620,U, JP,H4-5906,A, etc. is indicated, The composition of this publicly known invention fixes LED so that it cannot secede from a lead, a bone, or a holder, and in this composition, the following breaks out as a practical question.

1) there is a possibility that may damage LED which boils an umbrella occasionally, carries out, was easy to be treated violently, and was easy to throw something especially the tip of the bone of an umbrella, therefore the publicly known invention fixed, and it may be missing. For this reason, although to constitute stubbornly is required for preventing it, there is a limit also in the production costs of an umbrella, and when missing [damaged and], with the composition of a publicly known invention, repair will not be easy and may call it the life of an umbrella depending on the case. (Above said publicly known 3 inventions)

2) Although it is possible to manufacture an umbrella in trial production with the composition which fixes LED to a lead or a bone, the manufacturing process is very difficult for carrying out connection fixation at a lead and actually manufacturing each LED in the mass production of an umbrella, and it is low. [of the productivity

mentioned later] (Above said publicly known 2 inventions)

[Problem to be solved by the invention]This invention is what was made in view of the problem of a safe side, an ornamental face, and a manufacture side which is latent in said publicly known invention and the conventional umbrella, The purpose is to have composition which switches each LED provided along with the bone of an umbrella in a safe side to two steps, "continuation lighting" and "blink luminescence", and makes it emit light, It enables it to demand evocation of the cautions proportional on that occasion and warning from a driver in two steps, It is demonstrating the most effective safety, and some blink patterns are prepared beforehand in the ornamental face, and it is providing a fashionable luminescence umbrella with the fanciness which had an electric-spectaculars fine sight by choosing them, switching and enabling it to emit light. In a manufacture side, productivity is providing the luminescence umbrella which, at best moreover, took into consideration aftercare with easy repair exchange most. It is also in providing the blink luminescence umbrella made with the most inexpensive composition.

[Means for solving problem]In a safe side and an ornamental face in order that this invention may solve said SUBJECT, LED (7) is provided in at least one place of the lead (9) which wires along with the bone (3) which constitutes an umbrella, it letting this lead (9) pass to bone [said] (3) meet along said bone (3) and in a support (4), and accept it, and, [a lead] [wire and] Switch with the power supply battery (8) which makes circuit connection with this each lead (9), and, [a switch (10) and a blink circuit (11)] It is the composition of grasping, respectively, providing in (5) or root clusters (12), switching each LED (7) to blink "putting out lights" or "continuation lighting" or, and "luminescence", and making it emitting light with said change switch (10). In said blink circuit (11), it is each LED (7) and (7)... The control part (11a) which changes the blink cycle of each of (7) respectively, and supplies electric power is provided, every beforehand set up by this control part (11a) - - LED (7) and (7) ... [at least two or more sorts of blink patterns according to the blink cycle of (7)] [prepare and] It is the composition of switching and choosing it as either of the blink pattern, and making it emitting light with a blink pattern change machine (10A), The blink change switch (10B) which made one both the bodies of the change switch (10) and the blink pattern change machine (10A) is formed in said circuit, the blink change switch (10B) -- every -- LED (7) and (7) ... (7) -- "putting out lights", "continuation lighting", "blink pattern **", and "blink pattern ***" -- it is the composition of switching to either of ... and making it emitting light. It has composition which the LED carries out self-blink and emits light by forming the self-blink LED as composition blinked inexpensive even if it does not provide a blink circuit. In a manufacture side, it is a manufacturing method which wires, provides each LED (7) in said socket (14) so that insertion and detachment are possible, carries out connection fixation, manufactures the socket (14) of a necessary number to a lead (9), and then manufactures the lead (9) to it next along with a bone (3). To the tip part of the lead (9) which supplies electric power to LED (7), carry out connection fixation and a socket (14) is manufactured, Next, it is a manufactured manufacturing method with which locates this socket (14) at a bony (3) tip, makes the socket (14) equip with LED (7) so that insertion and detachment are possible, and then covers this LED (7) with the protection cap (15) of a light transmittance state, and said bone (3) is decorated. It can also have composition which makes circuit connection of at least one of the bones (3), supporters (6), and supports (4) which constitute an

umbrella as an energized part which supplies electric power to each LED (7).

[Mode for carrying out the invention]The forms which this invention carries out are enumerated below and, for details, an embodiment explains.

- * LED may be installed in all bones and may be installed only in the selected bone.
- * One LED installed along with one bone may be good, and plurality may be sufficient as it.
- * The lead which wires along with a bone may let inside pass, as long as a bone is hollow, and as long as it is faithful, it may wire along the outside.
- * Not only red but green and blue may be sufficient as LED, and it may be made intermingled respectively.
- * The cycle which blinks each LED, and its blink pattern can be variously set up by the control part of a blink circuit.
- * The battery used as a power supply may be a battery.

[Working example]This invention is explained based on Drawings.

Embodiment 1 drawing 1 shows Embodiment 1 of this invention. First, it grasps to the lower end of the support 4, there is 5 as composition of the conventional umbrella 1, there is the supporter 6 in the upper part of the support 4, and the bone 3 supported pivotally by the supporter 6 comprises the sheet 2 stretched to those with two or more (usually 8), and the bone 3. In this composition, the front view in which drawing 1 (a) shows Embodiment 1 of this invention, and drawing 1 (b) show the bottom view seen from the bottom. It is what made circuit connection and provided LED7 [red] in each tip part of the eight bones 3, It is the composition shown in drawing 7 as this circuit composition, eight LED7 and 7...7 are connected to parallel, respectively, and it switches with the battery 8, and circuit connection of the switch 10 and the blink circuit 11 is made, and LED7 and 7...7 are switched to "OFF", "continuation lighting", and "blink luminescence." Each formation part is explained here. As shown in drawing 5, LED7 makes solder connection of the two leads, + pole and - pole, 9 and 9 at the electrode terminals 14b and 14b of the socket 14, respectively, and it wires the leads 9 and 9 inside the bone 3, The socket 14 is located at the tip of the bone 3, and after inserting two terminals of LED7 in each of those electrode holes 14a and 14a and connecting with them, the protection cap 15 can be reversed and it provides. The protection cap 15 was formed by the synthetic resin of the light transmittance state, was provided in the fitting type and screwing type which are locked so that it may not separate easily, and in the state where it was able to reverse, as external force was not added to direct LED7, it has prevented breakage of LED7. The protection cap 15 can consist of flexible materials which can be hard to break. It may fix at the tip of the bone 3, and it may fix and the socket 14 may also drop off. As shown in drawing 4, a power supply section is grasped, it provides in 5 and the change switch 10 of a rotation change type is grasped, it provides in the top flank of 5, the blink circuit 11 is grasped, and it provides in the inside of the upper part of 5. And although the blink circuit 11 is not illustrated with the circuit composition of drawing 7, an electrolytic condenser and IC (LM3909) can constitute. Next, the single 5 type battery 8 is made into 2 series, and is grasped, it stores and provides in the battery holder 13 in five, and the upper part of the grip 5 is provided in attachment-and-detachment structure by a screwing formula. The lead 9 linked to LED7 and 7...7 and 9...9 wire in each bone 3, after they make each said pole connection with the supporter 6, they give a margin a little, let pass

and wire in the support 4, and make circuit connection of each of these leads 9 and 9 with the change switch 10, the blink circuit 11, and each terminal of the battery holder 13. It can connect by the connector which is not illustrated and connection of the leads 9 and 9 which wired the inside of this support 4 may be connected soon. Since it is not interfered since it is wiring in the support 4 and the margin of length is moreover given a little with the supporter 6 when each leads 9 and 9 fold up the umbrella 1 with this composition, there is no fear of disconnection by crookedness. If actual use by this composition is carried out to the circuit composition of drawing 7, and the change switch 10 formed in the grip 5 is rotated, and it is switched and operated, for example, it fixes to "blink", If eight LED7 provided in the surroundings of the umbrella 1 and 7...7 carry out blink luminescence at a stretch simultaneously and it fixes to "lighting", light will be emitted by continuation lighting at a stretch. The blink cycle of blink luminescence here is changed by changing the circuit composition of the control part 11a in the blink circuit 11. Since luminescence which this LED7 [each] blinked is visible in the shape of [three-dimensional] an ellipse from a distance, and a round umbrella emerges in the shape of an ellipse periodically, and the vision of it can be carried out, and it is very conspicuous in a dimly lighted place and visible, cautions and evocation are urged, and that effect has an effect larger than having switched on the light continuously. If the umbrella 1 is leaned, since it shines periodically, and it emerges and is visible in variety ellipse (maximum circle) shape by the inclination, it will be made to gaze at people's eyes, and a fine sight will be given. Not only red but it is green in LED7 and 7...7, and it can be made green blink, can also blink [it can constitute, and red and green can be made intermingled, and] here, and also becomes blink luminescence provided with the electric-spectaculars fine sight. It is effective especially in order that carrying out in an instant and carrying out blink luminescence red may tell danger, in foreknowing especially danger, since it can do by carrying out the change of lighting or blink with the change switch 10 in an instant and is switched according to a situation on that occasion. It is fixing the change switch 10 to "OFF" at the time of intact, and each LED7 keeps lighting and blink not carried out, and it can be kept. Although wired through the lead 9 in the bone 3 and the support 4, circuit connection of the bone 3, the supporter 6, or the support 4 can also be made as an energized part very by the side of one. Next, as a manufacturing method, to the tip part of the lead 9 which supplies electric power to LED7, carry out connection fixation and the socket 14 is manufactured, [next the thing to carry out to the manufactured manufacturing method with which locates this socket 14 at the tip of the bone 3, makes the socket 14 equip with LED7 so that insertion and detachment are possible, and covers this LED7 with the protection cap 15 of a light transmittance state, and said bone 3 is decorated] Even if it is covered with the protection cap 15 and it is hard to damage LED7, and LED7 is damaged while using an umbrella, substituting for new LED will be possible and repair exchange can be performed simply. In a manufacturing process, the socket 14 For example, since it can constitute so that either red LED or green LED can be taken out and inserted, The wire harness assay which carried out connection fixation of the socket 14 can be communalized with red to the lead 9 at green two ways, and the part mark in a manufacturing process are made to the minimum, and a manufacturing process is easy and it becomes easy to produce it.

Embodiment 2 drawing 2 shows the composition of Embodiment 2 of this invention. Each socket 14 which the

leads 9 and 9 connected in parallel with three places is formed to the eight bones 3 which constitute the umbrella 1, and they are every LED7a1, seven b1, and 7c1/to each... Each terminal of /7a8, seven b8, and 7c8 is inserted, respectively, and the leads 9 and 9 are formed along with the bone 3. [the method of connection fixation with the leads 9 and 9 and each sockets 14 and 14A] For example, the socket 14 and its electrode terminal 14b cylindrical at the tip of the two leads 9 and 9 with composition as shown in drawing 13, Solder connection of the 14b is made and it fixes, and solder connection of the sockets 14A and 14A of the size like 3 mm(width) x6 mm (length) x 2.5 mm (height) is made with each electrode terminals 14b and 14b, respectively, and it fixes to **** which stripped covering and was exposed at two suitable places of the leads 9 and 9. It may connect with a series of one lead 9, and the connection between each sockets 14A and 14A and the lead 9 may prepare the lead 9 which connects between each socket, respectively, may divide it, and may be connected here. The leads 9 and 9 connected with the socket 14 and the sockets 14A and 14A here set aside the main part of an umbrella, It can manufacture as one wire harness assay, and the wire harness assay object which bundles the leads 9 and 9 which wire each bone 3, respectively, and makes connector connection of the tip with the above-mentioned power supply section can be built. Each wire harness assay shown by drawing 13 and drawing 14 can raise the productivity mentioned later. As the attachment method to the umbrella of the wire harness assay shown by this drawing 13 and drawing 14, when hollow [the bone 3], it can fix by the locking member which makes the leads 9 and 9 through and an insertion type into the bone 3, or does not illustrate a proper place as shown in drawing 15, or can fix with adhesives. And LED7 by which both terminals were projected in the direction is inserted in the electrode holes 14a and 14a of the socket 14 fixed at the tip of the leads 9 and 9 in the state where it fixed, the protection cap 15 can be reversed like drawing 5 of Embodiment 1 from on the, and it fixes to the bone 3. Next, as an embodiment projected mutually in the counter direction, a terminal inserts LED7B (Matsushita Electronics Industry part number LN0120CAL) of the size like 2.2 mm(width) x3 mm (length) x 1.5 mm (height) in the electrode holes 14a and 14a of said socket 14A, and is fixed. Since LED7B is the above mentioned minute size, even if it changes into the state where it fixed on the bone 3 and covers with the sheet 2, it does not become obstructive at all here. Not hollow but when solid, the bone 3 may make the leads 9 and 9 be along the outside of the bone 3, and may wire, and may connect mechanically the connection between the lead 9 and the electrode terminal 14b of the sockets 14 and 14A in total not only with solder connection but with a sticking-by-pressure implement etc. The socket which carries out connection fixation with the lead 9 may be made only socket 14A type composition, and may be provided in each position including the tip of the lead 9. It is that total LED7a1, seven b1, and 7c1/to have LED7 and composition which carried out connection fixation of the 7B, respectively by this composition, and to be shown in drawing 8... It is the circuit composition which shows one embodiment which carried out multiple connection of /7a8, seven b8, and 7c8 respectively. It is visible in the shape of [three-dimensional] an upper hemisphere, and if it connects with "lighting" and continuation lighting is first carried out with the change switch 10 here, from Embodiment 1, the light which emits light can carry out vision of the shape of an umbrella to relief in three dimensions like a planetarium further, and moreover the umbrella 1 whole is brightly conspicuous still more gorgeously, and it is visible. By leaning the umbrella 1, the light which each emits light

overlaps or is each other interwoven with, and gives a fine sight further further. Next, if it switches, the switch 10 is switched to "blink" and it connects with the blink circuit 11, there is a blink pattern of shoes to set as the circuit in the control part 11a beforehand, and the blink pattern is switched with the blink pattern change machine 10A, and can be made to emit light by a desired blink pattern. The blink pattern is made by carrying out variable setup of the cycle which supplies electric power to every LED7 and 7...7 in the circuit in the control part 11a one by one. One example of an operation circuit in the control part 11a is shown in drawing 9. The circuit shown here uses Si 7 TOREJISUTA, is using a serial input and parallel output type Si 7 TOREJISUTA, can prepare a blink pattern as shown in drawing 10, using this circuit composition, can switch it with the blink pattern change machine 10A, and can be blinked respectively. if the example of each of that blink pattern is shown -- (a) every -- LED lighting up in order and, [LED] All-points light is carried out. All the blink patterns to switch off. (b) Each LED every one by turns. [blink] blink pattern (c) every to repeat -- blink pattern (e) every in which LED of two blink patterns (d) in which LED repeats blink simultaneously, and one LED repeat blink by turns -- although LED can set up by the blink pattern etc. which blink in the shape of [one / every] roulette, it can set variously to others. Blink speed is changed by the volume 11b. Drawing 11 is what makes one both the machines of the change switch 10 and the blink pattern change machine 10A, and was switched with one switch, that blink change switch 10B -- every -- LED7 -- "putting out lights", "lighting", "blink pattern **", and "blink pattern ***" -- it can be respectively switched to ..., and by having this composition, all the change operations can be performed with one change machine, and it can be operated very easily. LED7 is connected only to the socket 14 connected at the tip here in the wire harness assay shown in above-mentioned drawing 13, other sockets 14A may be left an opening and may be provided in the bone 3, and by carrying out like this, it has the same composition as Embodiment 1, and can carry out. Since LED7 and 7B are constituted to each sockets 14 and 14A, enabling free insertion and detachment, for example, connecting and constituting red LED, connecting and constituting green LED, or making intermingled and constituting. Since it can communalize altogether by one wire harness assay of illustration and wire harness assay can be each communalized for this reason, also when manufacturing the luminescence umbrella of varieties, part mark can be reduced, and manufacture is easy and, moreover, can produce at low cost. [being able to carry out connection fixation of the leads 9 and 9 and each sockets 14 and 14A which became independent respectively about wire harness assay, also being able to constitute from another connection, and constituting in this way here, as shown in drawing 14] Control which turns on or blinks separately LED7B provided in the one bone 3, LED7B, and LED7, respectively can be performed. As shown in drawing 16, it may constitute so that flexibility may be given, and one end each of the electrode terminal 14b of the socket 14 and the socket 14A may be mechanically contacted to the metal bones 3 and may be energized. It is necessary to connect to each LED in series the resistor R which restricts the current which supplies electric power to several 10 mA, therefore resistance may not be low, and if especially the bone 3 is iron material, it fully achieves the duty of energization and can carry it out with this composition. By the above mentioned composition of wire harness assay of drawing 14, the blink pattern in which the umbrella 1 emits light can be composed of still more various blink patterns, For example, it can be made to switch on the light or blink towards a lower part in order of LED

(7c1...7c8) ->(seven b1...7b8) -> (seven a1...7a8) from the upper part of an umbrella. The blink circuit 11 can integrate each element which carries out circuit composition, can make it the letter of a chip, and can be dedicated here in the upper part of the grip 5 shown in drawing 4.

Embodiment 3 drawing 3 shows the composition of Embodiment 3 of this invention. It is what provided self-blink LED7A which built in the oscillation chip at the tip of every the one four bones 3 among the eight bones 3 which constitute the umbrella 1, and if it is made the circuit connection shown in drawing 12, self-blink can be carried out and four self-blink LED7A can be made to emit light. If it has this composition, even if it will not connect the circuit for blink, self-blink is carried out, and manufacture implementation can be carried out very inexpensive. LED7A of a suitable number may be installed in the eight bones 3 like Embodiments 1 and 2.

Embodiment 4 drawing 6 shows the composition of Embodiment 4 of this invention. What used as the hollow central part integral-moulding object the battery holder 13 and the blink change switch 10B which store the battery 8, and the blink circuit 11 is fixed on the root clusters 12. Although it may grasp like a last embodiment, it may switch by 5 and switching operation may be carried out, it is the composition that could switch and carry out switching operation even to the root clusters 12 like the composition of this embodiment, and it was suitable for especially *****. The double several colors LED which emit light to two or more colors can also constitute LED7 from one LED simple substance as composition of this invention. LED7 is added, it can provide in the peak or the inside of the root clusters 12, and it can also be made to emit light. It switches to the root clusters 12 with the battery holder 13 with said composition, and may be made to make either and the blink circuit 11 of the switch 10, the blink pattern change machine 10A, or the blink change switch 10B install. The lead 9 may consist of coaxial cables. In the umbrella of a ***** type, the lead 9 may be wired along with the bone 3, and it may have composition which connects the lead 9 with the sliding type electrodes 16 and 16 which carry out contact energization at the sliding type provided in the support 4 shown in drawing 12. The support 4 is made into one pole, and is energized here, and this sliding type electrode 16 also has composition of only one pole, and it can also provide in the peripheral surface of the support 4.

[Effect of the Invention]As mentioned above, since this invention switches each LED provided along with the bone of an umbrella to "continuation lighting" or "blink luminescence" and can emit light, it makes two steps the cautions on that occasion and warning according to a dangerous situation, can evoke a driver's, can be made to be able to gaze at them most effectively, and can provide a safe luminescence umbrella in a safe side. In an ornamental face, selection change ***** can be carried out at the pattern of a request of the blink pattern of shoes to prepare beforehand, and the spectacle can provide a fashionable umbrella with electric-spectaculars a fine sight and fanciness. Since it is a manufacturing method which manufactures the lead which carried out connection fixation of the socket of a necessary number beforehand as harness assay in respect of manufacture, can be communalized, and equips LED by a next process so that insertion and detachment are possible, Manufacture is easy, productivity is the best and the luminescence umbrella with which after production can moreover do aftercare of repair exchange simply can be manufactured. By manufacturing a luminescence umbrella with the structure which can reverse a protection cap to LED provided at a bony tip, and attaches it decoratively, even if violent treatment is made by actual use, LED can provide the strong

luminescence umbrella which is hard to be damaged easily. By constituting from the self-blink LED not using a blink circuit, the blink luminescence umbrella made in the most inexpensive production costs can be provided. It can also make it simultaneous to lessen consumption of a battery in the meantime with the composition which carries out blink luminescence.

[Brief Description of the Drawings]

[Drawing 1](a) The front view of one embodiment of this invention

(b) The bottom view of one embodiment of this invention

[Drawing 2](a) The front view of one embodiment of this invention

(b) The bottom view of one embodiment of this invention

[Drawing 3](a) The front view of one embodiment of this invention

(b) The bottom view of one embodiment of this invention

[Drawing 4]The sectional view showing the partial composition of one embodiment of this invention

[Drawing 5]The sectional view showing the partial composition of one embodiment of this invention

[Drawing 6](a) The front view of one embodiment of this invention

(b) The perspective view showing the partial composition of one embodiment of this invention

[Drawing 7]The circuit lineblock diagram of one embodiment of this invention

[Drawing 8]The circuit lineblock diagram of one embodiment of this invention

[Drawing 9]The circuit lineblock diagram of one embodiment of this invention

[Drawing 10]The timing chart of each blink pattern of the embodiment of this invention

[Drawing 11]The circuit lineblock diagram of one embodiment of this invention

[Drawing 12]The sectional view showing the partial composition of one embodiment of this invention

[Drawing 13]The perspective view showing the partial composition of one embodiment of this invention

[Drawing 14]The perspective view showing the partial composition of one embodiment of this invention

[Drawing 15]The assembly perspective view of the partial composition of one embodiment of this invention

[Drawing 16]The assembly perspective view of the partial composition of one embodiment of this invention

[Explanations of letters or numerals]

1 : Umbrella

3 : Bone

4 : Support

5 : Grip

7 : LED

7A: Self-blink LED

8 : Battery

9 : Lead

10: Change switch

10A: Blink pattern change machine

10B: Blink change switch

11: Blink circuit

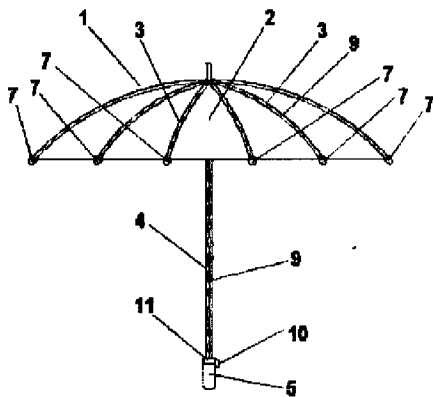
11a: Control part

14: Socket

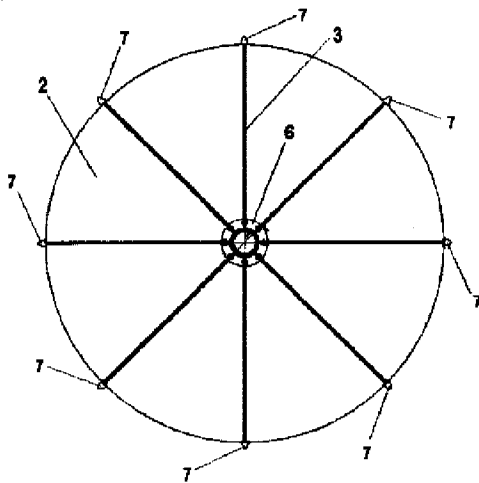
15: Protection cap

[Drawing 1]

(a)

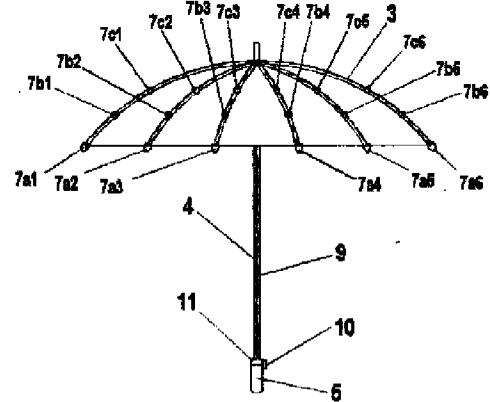


(b)

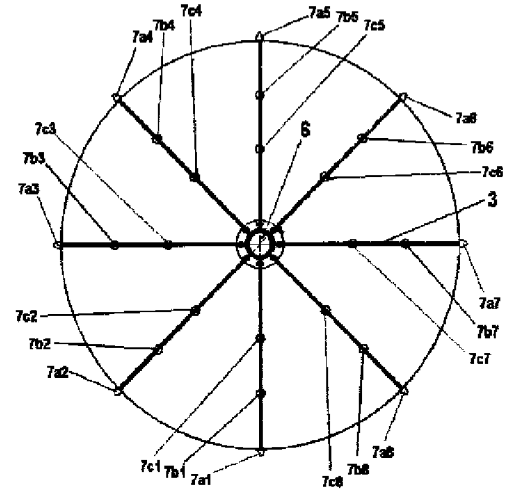


[Drawing 2]

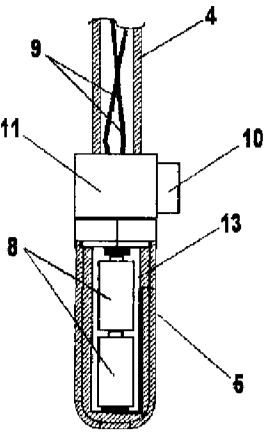
(a)



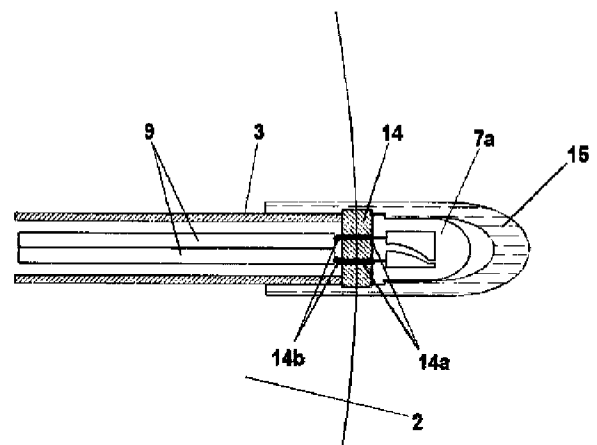
(b)



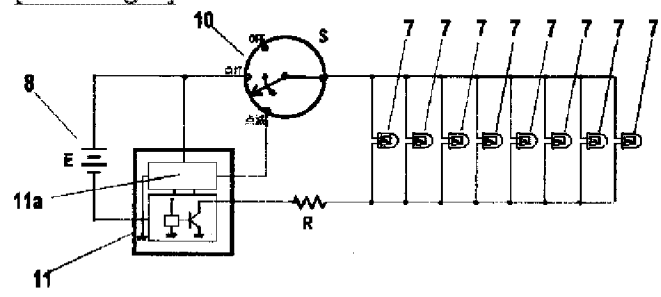
[Drawing 4]



[Drawing 5]

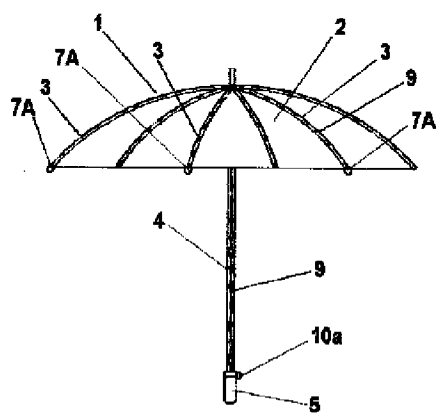


[Drawing 7]

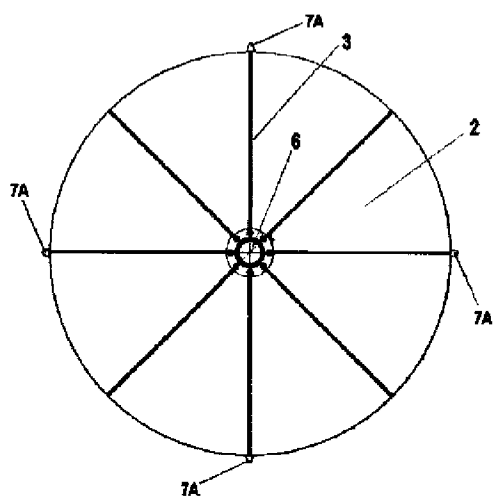


[Drawing 3]

(a)

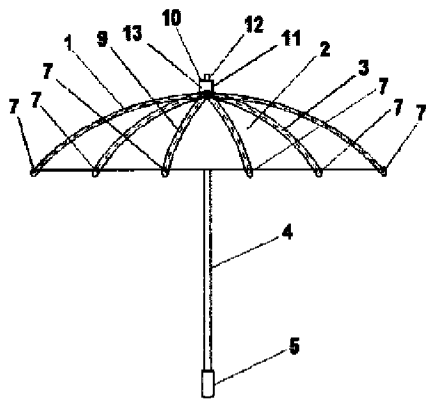


(b)

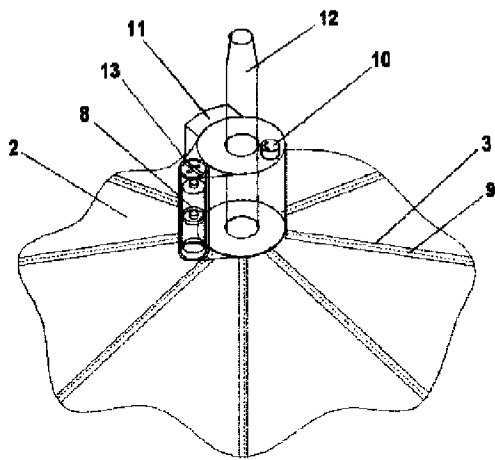


[Drawing 6]

(a)

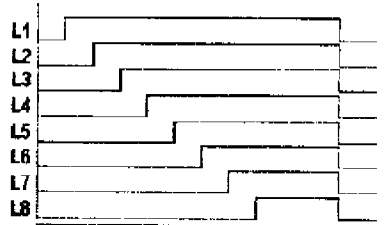


(b)

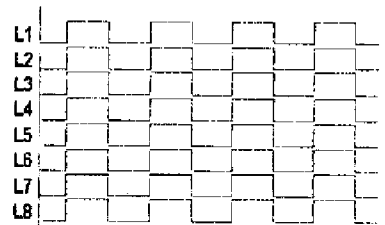


[Drawing 10]

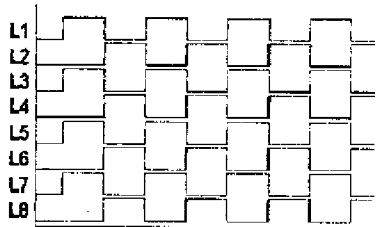
(a)



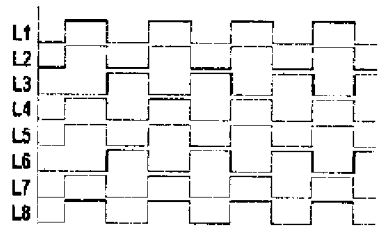
(c)



(b)



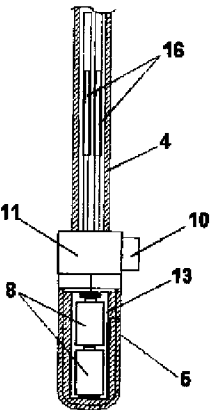
(d)



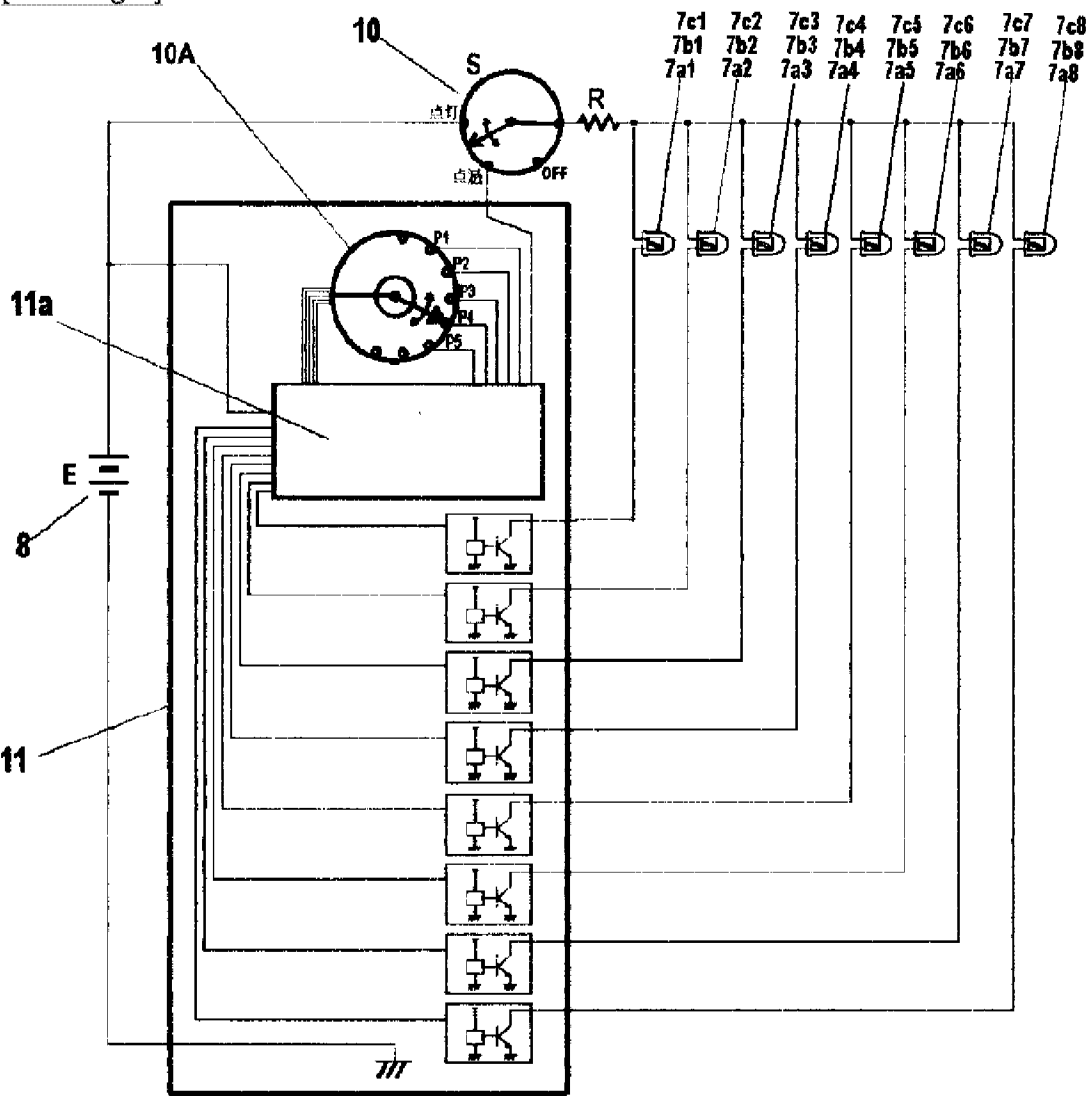
(e)



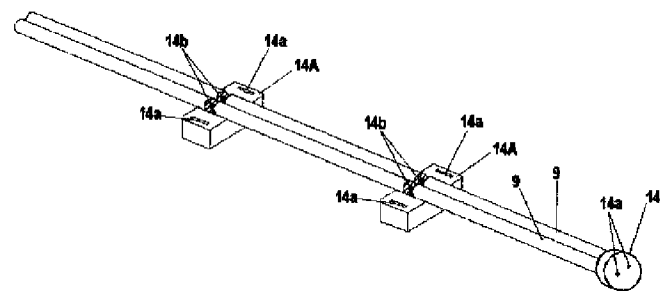
[Drawing 12]



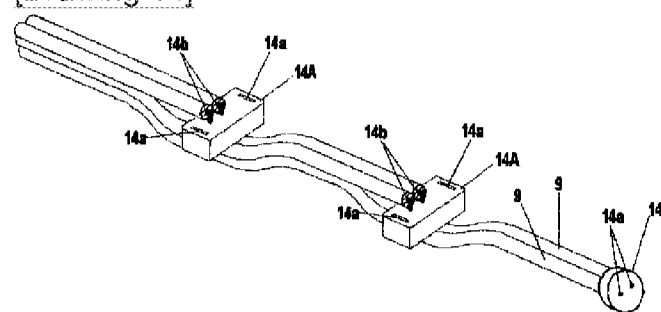
[Drawing 8]



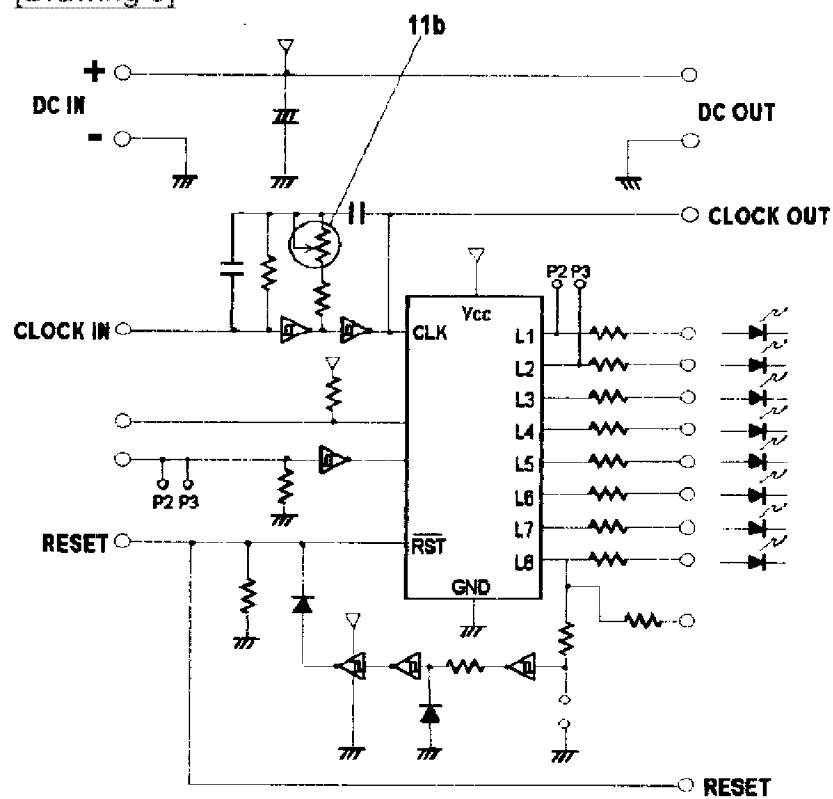
[Drawing 13]



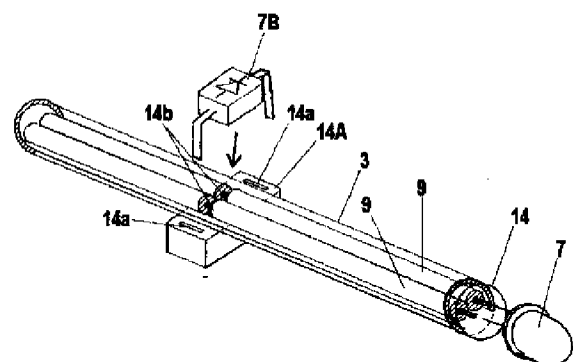
[Drawing 14]



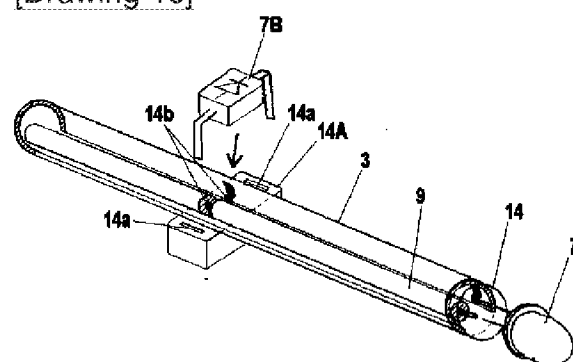
[Drawing 9]



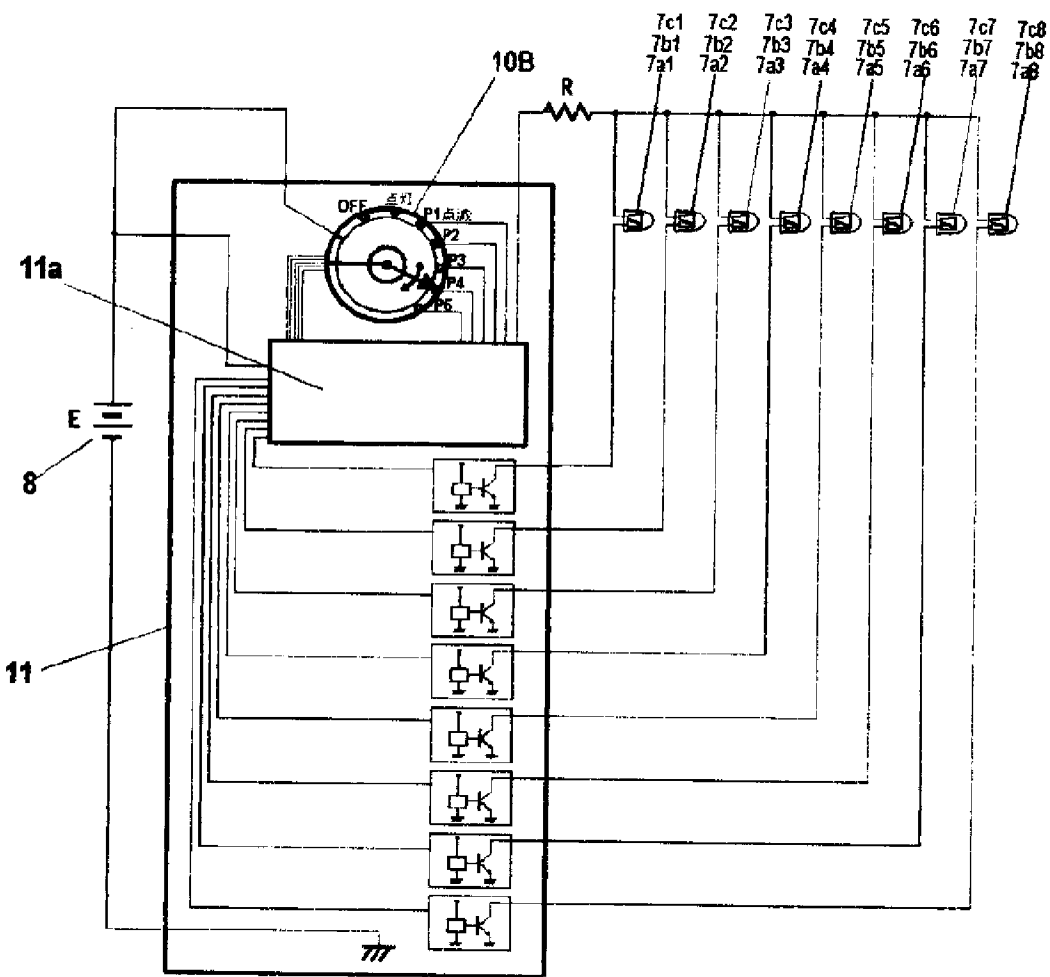
[Drawing 15]



[Drawing 16]



[Drawing 11]



[Translation done.]